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Agricultural.

ENSILAGE.

L. D. Rucker, of Grosse Isle, who is feeding over 100 head of dairy cows, has been putting up ensilage for three seasons. Last season he had a stone silo erected, with walls two feet thick, partly underground, with concrete floor, capable of containing 150 tons. This he filled with green corn fodder, weighting it heavily on top. He began feeding it early last winter, and continued it until all was consumed. He was so well satisfied with the result that this season he built another silo, this time of wood, using heavy oak plank, and covering the inside with roofing paper so as to exclude all air, the roof being made of flooring, tongued and grooved, and everything done in a substantial and careful manner. This silo is about six feet under ground and six feet above, with folding doors opening outwards into which he can drive his teams. Its capacity is also 150 tons, and he has just begun feeding from it. It was filled early in September, and when opened the other day the contents were in such excellent condition that there was not an ounce of waste. It was as green as when first cut, and the stock evinced every token of appreciation when it was fed out to them. As to cost, the first season, although the stone building had been costly, he was more than satisfied upon that score, and with the difference in outlay for the wooden silo, which in all respects answers equally well, and is good for twenty-five years at least, he is certain the balance on the right side of the ledger will be still larger this season. The two silos will be filled from about 15 acres of ground, an average of about 2 tons to the acre. To secure this yield of fodder Mr. Rucker sent down to Georgia for some seed corn of a large variety, and it grew with a vengeance. He spoke of stalks so large that a boy climbed up one five feet from the ground without its breaking. The growth of leaves and stalks was enormous, and tested a Ross Ensilage cutter severely to cut it. Mr. Rucker thinks he can feed six cows all winter upon the produce of an acre, reinforced with a little dry food, and have them keep up a good flow of milk and come out in good condition in the spring. He is the first farmer in the State who has, to our knowledge, thoroughly tested the question of the value of ensilage as food, as well as the best methods of preparing it. Last spring when it gave out he said his cows at once showed a decided decrease in the flow of milk. He will stick to ensilage so long as results continue as good as they have so far with him.

SELECTING VARIETIES FOR THE ORCHARD.

More has been written and talked upon this one subject than upon any other, and perhaps upon all other horticultural topics combined. The time was in the history of our State when this subject would seem more pertinent. Could the experience of the last twenty years have been foreseen, and the lessons outlined in the suggestions formulated previous to that time, many mistakes that are now past remedy would have been made. Michigan was then the paradise of tree agents. The knowledge of varieties was such as had been gathered in the eastern States, and this the new settlers blindly supposed could be applied here as well as there. "Rochester" nurseries could furnish their familiar seeds, and they monopolized the business, and so more than half the trees in the State unless they have been top grafted, are unproductive and unprofitable. The trouble comes in educating people by experience. They are likely to cling to a preconceived notion, until a practical experience has demonstrated its futility. When this experience takes half one's active and practical life, there is not much time or inclination

left to start anew on the line of more practical methods.

I am led to consider this topic by recently seeing a list of varieties of apples selected for an orchard of 100 trees. It is as follows: Twenty Baldwin, 15 Greening, 10 King, 10 Spy, 10 Twenty Ounce, 10 Russet, five Fall Pippin, five Talman Sweet, five Red Astrachan, five Seek-no-further and five of early varieties.

This list, one may fairly suppose, is calculated to comprise what is generally termed a family orchard, with an incidental market character—that is, an orchard where enough shall be grown for family use and some for market. Now with the experience of the past twenty years before us, there are but twenty trees in the list that will pay for the ground they stand on, for the latter purpose, except in exceptional cases and very favorable circumstances. The twenty Baldwin trees will give a good return on almost all the different soils of the State, but the other varieties are five times too large. If I were to set the hundred trees I should call for 75 Baldwins, and divide the 25 into 20 varieties, expressly for the use of the family and farm. The nurseryman might call me notional, and perhaps harder names, but I could convince him, as I can every other sensible person, that I should be right. It might be difficult to procure the twenty or more sorts I should require; in that case I should set some hardy sort, as Duchess or Spy, and graft the kinds on them that I desired. The tastes of persons for apples are not identical, any more than their tastes in other matters, and the object should be to gratify as much as possible their different tastes. In the first place, a succession of apples for the season will require three for winter and five for summer. For each of these we need a sweet, a mild and an acid fruit, and this will make 24 varieties to suit the season and tastes of different individuals. Not one farm orchard in ten in the State furnishes apples to sell, and out of the one hundred or more the orchards will average, not one in five is a productive tree. Take the orchards as they will run and there will be a lot of nondescript fruit that no one would take for the gathering, and yet somebody is still thinking the variety is valuable, and would set the tree in a collection for an orchard. I am aware that sorts succeed according to locality. Thus in the eastern part of the State the Fameuse is highly prized and it keeps well into winter. I have two trees that drop their fruit in September, they soon wither and the hogs devour them. Autumn Strawberry is too scabby and I seldom get a single fair specimen, yet it is thought much of elsewhere. Greenings begin to drop here in September, and the promise of even a moderate crop is usually disappointing. From 13 trees this year I gathered but three barrels of marketable apples. Then I have a row of Shaar which are scraggy trees and produce a few punny apples. Rambo, Large trees of Holland Pippin, give perhaps a peck of apples each—specimens. A Ribston Pippin row succumbed to hard winters and dry summers, except three trees which I have top-grafted to Baldwin. Vanderveer, ditto, a variety called Western Spy makes good missiles to throw at squirrels; have top-grafted the row, except two trees which are left as evidence of the total depravity of those nurserymen who continue to propagate a fine growing tree, regardless of the quality of the fruit. I wanted a fine summer variety to succeed Early Harvest, and the Benoni was advertised to fill the bill. I procured some scions and set them. They drop before they are mellow and rot before they are ripe. I have three large trees of Spitzenburg in an old orchard, but my knowledge of the fruit is limited to an indistinct memory of them in Western New York when I was a boy. The fruit of Peck's Pleasant is excellent but apt to be irregular. The tree is a shy bearer and unprofitable. Two trees in the hundred are enough.

I have indicated some of the varieties I would not set for an orchard, and here are some that I would have: Baldwins, as many as you can afford room for, and then calculate to top-graft a lot more. This is all I would set for market. For eating, cooking, and a few to show at the fairs one has a wide range for selection. For winter I would have Canada Red and Jonathan. Then there is Seek no-further, Hubbardston, Tallman Sweet for baking; Greening and Peck's Pleasant—all good. A tree or two of each is enough. For early fruit Red Astrachan and Sweet Bough are the extremes of goodness, with a lot between, such as Early Harvest, Primate, &c. Summer fruit is more plenty and a larger choice is presented. Chenango Strawberry, both in tree and fruit, is all that can be desired. Duchess of Oldenburg, St. Lawrence, Maiden's Blush, Flower of Geneva, President, Pomme Royal and Porter, are all good. The list of autumn fruit is fuller yet. The pippins are numerous and generally fruitful. Alexander is showy and good if kept until fully ripe. Early winter varieties are supplied by Belmont, Fall Seek-no-further and Jonathan.

When one sets fruit before his guests, it should be in variety, so that the diverse tastes of people can be gratified. A plate of Russets would not be very tempting,



MERINO RAM PREMIER (C. P. C. 138), OWNED BY J. EVARTS SMITH, YPSILAN TI

First fleece, 20 lbs. 2 oz.; 2d fleece, 28 lbs. 2 oz.; third fleece, 34 lbs. Weight in full fleece, 180 lbs. This ram was bred by C. P. Crane, of Vermont, and was sired by Rip Van Winkle (535) dam bred by C. P. Crane, and sired by C. P. C. 88 (156); second dam by Buck's Mountain (247).

FASHION IN SHORTHORN BREEDING.

NO. VII.

THE COLOR "MANIA."

Of the various whims that have been followed by a majority of Shorthorn breeders, and been adhered to tenaciously until to be successful it was necessary to follow the fashion, none perhaps has been so rampant as that of breeding for the red color. There perhaps has not been a fashion in any form against which there has been so much said, and written, as this one. English breeders have raised their protest and declared that the breeding for red color was not in accordance with the practices of their forefathers, and that the custom so universally prevalent in our country was sure to bring ruin and disaster to the Shorthorn breeding business. They have raised before our gaze visions of the white and red roan ancestors and declared them examples worthy of our imitation. Well executed portraits of the famous bulls Comet, Foljambe, Belvedere, Commander in Chief, and others that were nearly white are held before us and it is said to us: "Look at the work of the noble founders of the breed and see that the white belongs to Shorthorns and that the red is a foreign element." We in response call up the visions of the yellow-red Hubbock, J. Brown's Red Bull, the speckled Kitton and the red and white Duchesses of an early day, and our opponents will declare that "there might have been a few red Shorthorns in the beginning but there is no just reason for making the red color universal." Our English cousins are fond of mentioning the fact whenever a white animal reaches a distinctive point. To illustrate we will copy a quotation from John Thornton's circular (a London, England, publication).

We do not believe that the almost universal preference for red among American breeders comes from a desire to imitate Thomas Bates in his early days, but the demand seems to have been imperative by those who were purchasers; and it has become a matter of necessity that breeders should produce such as would sell best. Notwithstanding the cry of many of the old breeders has been against red color the younger breeders have ignored their warning, and made their practice comply with what they considered their best business interests. One might as well undertake to persuade the young Americans to wear sheep's gray colored pants today because his father or grandfather did as to persuade him to breed his Shorthorns to a white bull simply because his grandfather or the Collings Brothers of England did.

"J. Outhwaite's well known bull, Royal Windsor (29890), has recently been sold to the butcher. He was one of the handsomest bulls of his day, white in color. He won upwards of \$2,500 in prizes. The collection of the bull sold an animal of size, substance and vitality, and a good sire, was such that it was a serious loss to the country that he was not more used to the Balmessle sale, in 1878. Mr. Outhwaite placed the prohibited reserve of \$25,000 on him, and his fee for service was \$250."

We find by careful research that this "mania" is not of recent origin, nor does it belong exclusively to America. One of the best informed Shorthorn writers, Francis M. Rotch, as early as 1833 says: "White is sometimes objected to, under the impression that it is apt to spread through the herd and overpower the other colors; but this fear is more common in this country than in England, where white bulls are often used. Fashion has vindicated the rich red and purple roans as the most desirable colors, and after them red."

However presumptuous American breeders may have seemed to their English friends in respect to the red color, they are free to admit that the tide of progress has been more rapid in this country than in their native country. While the cry by many has been against red color, it has been growing in favor, and has been like the kite that rises against the wind and not with it. All the talk of the older breeders against it has not lessened the desire in the minds of the younger breeders for it.

The fact that an animal is covered with a coat of red hair does not prove that the flesh that grows under it is of any better quality than that grown under white hair, and vice versa; but as long as the Shorthorns are bred by the wealthy as well as by the common farmer, and used as creatures that they can mold to their fancy in color, as well as in many other respects, the red color, which to many is the most beautiful, will be sought for. For several reasons will this be the case, one of which is the fact that the white when introduced is likely to overpower the other colors. Another is that it is much easier to breed red cattle by cou-

ABERDEEN-ANGUS.

A Visit to the Breeding Farm of R. C. Auld, Dexter, Washtenaw Co.

Within the life time of thousands of the young men of the period who have not yet arrived at an age when they can go to the polls and there deposit a ballot for free government and the inherent rights of man, our country has made rapid strides; strides so wonderful and marvelous that our nation has almost become the eighth wonder of the world. While the advance in other material interests has been so great, in none has more rapid advance been made than in the breeding of live stock. This important feature of our nation's wealth has been well cared for in our own State, and the change in sentiment regarding thoroughbred stock has been quite radical. So much so is this the case that there is hardly a township in the State in which thoroughbred stock is not bred, and most of the most rich pastures are grazed by either full blood or graded stock.

Our route for the last eighteen months has taken us over much of the richest as well as some of the poorest portions of the State, and we have rejoiced as we gazed on the grand and massive Durham, the symmetrical Hereford, the shaggy coated hornless Galloway, the black and white Holsteins, and the mild eyed, butter-producing Jersey; the thoroughbred running and trotting horses, the heavy Clyde, and the popular Percherons, and have thought of the time not far distant when this State, so much favored by Nature, should take precedence in them all. There is room for all, and for more of them.

Some four years ago Mr. R. C. Auld, a nephew of the late Wm. McCombie, of Tillyfour, Scotland, came to this country, and after an extended trip, in which he saw much to admire, came to the conclusion that this land should be his home. Determined on this he left his native heath, shipped a portion of his high bred herd of Polled Aberdeen-Angus, and landed in Detroit in the early part of this summer. After travelling over a portion of the State in search of a farm, and not finding a location to suit him, he remembered forming the acquaintance on shipboard of Mr. C. R. Mabley, and was by him introduced to Mr. George W. Shover, a dealer in real estate in this city, and through him his present location was purchased. The farm is situated partly in Washtenaw and partly in Livingston counties, two of the most favored ones in our State, by location, climate and soil. The farm comprises 260 acres of timbered land and grass land, and as it is many of its surroundings reminds Mr. Auld of his Scottish home he has christened it

EDDARROCH.

Eden meaning garden, and darroch oak. Two and a half miles to the north is the little enterprise village of Pinckney, just awakened from its lethargy of years by the completion of the Michigan Air Line, a part of the Grand Trunk railway system, the directors of which have put out their claws, clutched the British capitalists, and swallowed millions of their gold. This road places him within a little more than one hour's ride from Detroit, the commercial metropolis of the State. To the south, four miles, is the village of Dexter, a station on the M. C. R. R., distant from Detroit 47 miles, and 238 from Chicago. The surface of the farm is somewhat rolling and undulating, some marsh, and the soil a gravelly loam. The timber is oak and thick, swelling downwards, thick, deep thighs, wide and deep chest, level, broad backs, and with soft pliable hide, and a rich and even coating of flesh. The males have heads not large but handsome and neat, fine muzzle, expressive and slightly prominent eyes, ears of fair size well covered with hair, and a "high poll," neck fairly long, moderate crest, shoulder blades sloping well back and fitting nicely into the body, ribs sprouting out of back like staves in a barrel, etc., and it can be claimed, and proved that this breed is second to no other for early maturity and hardiness of constitution. They also excel in the standard of English butchers, for their excellent quality of flesh, it being well marbled, and may be called the best in the world. In hardiness of constitution they are unsurpassed, and they thrive well in those uplands where the Shorthorns could not. These cattle have always been famed for their beef, and we notice in the stock reports found in the North British Agriculturist, Edinburgh, Scotland, and the Live Stock Journal, of London, England, that the quotations for this breed lead invariably those of any other type of cattle. They also mature early, a very essential feature in beef cattle, and can be fed up to 1,250 to 1,500 pounds at the age of two years. At the Smithfield Fat Cattle Show in 1881, Sir William Gordon Cumming took the champion steer and female prizes in our State, which he has introduced to Mr. George W. Shover, a dealer in real estate in this city, and through him his present location was purchased. The farm is situated partly in Washtenaw and partly in Livingston counties, two of the most favored ones in our State, by location, climate and soil. The farm comprises 260 acres of timbered land and grass land, and as it is many of its surroundings reminds Mr. Auld of his Scottish home he has christened it

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"As lately noted Mr. R. C. Auld, of Pinckney, this State, who comes from the very fountain head of the favorite cattle with which he has been long connected, has just added a very valuable heifer to his herd. This is Eximia-Erica, which cost at public auction \$30 guineas. He also received another cablegram while in Detroit this week, intimating that his agent, Mr. James Whyte, has purchased at the sale of Mr. Thomas Ferguson, Kinclechy, Scotland, one of the latest and finest Princesses, Princess 6th, a fine heifer to Princess 6th, which went the round of the fairs in the line of Mr. Redfield, of Batavia, N. Y., and swept everything before her. Princess 6th is 600 lb. bred at Tillyfour, Scotland. This bull was awarded first in the class of aged bulls at the Dumfries Highland Society Show in 1876, at which show Princess 6th was also first as a yearling."

(Continued on eighth page.)

December 2, 1884

## The Farm.

## Depth of Roots.

The New York Experiment Station has been investigating the depth that roots of various plants reach, and publishes the following results:

In the Eclipse beet, the tap root was traced downward nearly two feet. Branches started out from this at intervals during its entire length; no roots appeared to start out above the tap root. The branches were traced horizontally from the tap root. The fibrous roots were very slender and delicate, and though not very numerous, extended over an area of about twelve square feet. They often extended upwards from the branches, and in some cases appeared to reach the surface of the soil. The Eclipse beet is of the turnip rooted class, and grows largely above ground.

In the Long Dark Blood variety the root system was slightly more extensive. The main root in the sample examined was smooth and symmetrical for a distance of eight inches, below which it divided into several branches, that, rather thick at first, rapidly tapered to the size of a stalk of timothy grass, and gradually thereafter until they became fibrous roots. One of the main roots was traced two feet, and one of the horizontal branches two and a half feet. The small fibrous roots so often seen on the surface of beet roots seem to have very little office, as they extend into the soil scarcely more than a quarter of an inch from their origin.

In the carrot, the root system is compared with that of the beet is very small. The tap root in the samples examined soon tapered into a mere filament, which extended downward about sixteen inches. The horizontal roots seemed to extend a little more than a foot. The fibrous roots started chiefly from the tap root, though a few originated near the base of the fleshy root. These extended both deep and shallow, some reaching to the surface of the ground, and others penetrating the soil as deep as the tap root. The leading roots of beet and carrot set out last spring to produce seed, penetrated the soil as far as those grown from seed. The fibrous roots were, however, less developed.

The root system of the onion differs from that of most other garden plants. It is more concentrated. The roots take complete possession of the soil for a small space, but extend a short distance. In the samples of the Blood Red variety examined the roots extended about ten inches deep, and about the same distance horizontally. The greater part of the roots seemed to be within a radius of eight inches. There is no tap root. The roots from the base of the bulb are very numerous, and give rise to many branchlets. The latter, however, do not subdivide, and are usually quite short.

In the cabbage, the root system is less extensive than in the cauliflower. The plant examined was of the Very Early Etampes variety, and formed an excellent head. The roots were traced to a depth of about twenty inches, and eighteen inches on either side. The main root was quite thick about six inches, below which it divided into many roots, that tapered for a short distance and then became fibrous, ceasing to taper. The fibrous roots in the upper layers of the soil were not numerous, and some appeared at a considerable depth. It is quite probable that in the larger varieties of cabbage the root system is more extensive than in the sample examined.

## Experiments with Potatoes.

Jonathan Talcott, in the *Country Gentleman*, relates the result of experiments in growing potatoes the past season.

One peculiarity of the season, or soil, or method of cultivation, we noticed in our trial plat of potatoes, where new varieties were tested, that we have never heard mentioned by other experimenters; it was that the deeper the potatoes were in the ground, the more scabby they were; also that they were not free from scabiness where special fertilizers were used, neither were they all scabby where only farm-yard manure was used as a fertilizer for that crop.

The piece in question was a sandy, gravelly soil easily worked, and very dry, and had been in cultivation upward of eighty years, being the first plat of ground cleared on the farm in 1803, for spring crops of that year, and it has probably been cropped with potatoes and other garden crops for fully half of that time.

The writer has cultivated the farm fifty-one seasons, and for a number of years of boyhood days, remembers the crops of early potatoes that were grown on this light, sandy soil, for home use and market purposes. The soil was pretty well fitted, deep furrows were drawn across the piece lengthwise, and a little compost of barn-yard and hen manure was scattered in the bottom of the drills over a little more than half the plot. The manure was then worked into the soil at the bottom of the drill, and both soil and manure were mixed up light and fine; the pieces were then planted with sets cut to single eyes of several new sorts, some of which have not been introduced to the public. They were sent to me by their producers, under numbers, to be tested and reported on. Some of them have proved in this single test very fine, while some of the new sorts, which have been very highly praised by their introducers, have failed to prove as good as represented on my ground. A long experience in testing new sorts of potatoes has taught me that very few come anywhere near to what they are represented in sale catalogues, or by experimental producers of new sorts. In planting, after the sets were dropped upon fifteen inches apart in the drills, the drills being about thirty inches apart in the rows, they were slightly covered with the hoe, and then phosphate sprinkled on the sets at the rate of 600 or 800 pounds to the acre; then covering was finished with a plow.

They were cultivated, about one-half of them, on the level culture plan; the other half was slightly hilled; the plot was cultivated frequently to keep down all weeds, and what few grew after the top

were too large to admit of cultivation were pulled by hand. The digging was done mostly by myself, and it was soon noticeable in the digging that those tubers which were the deepest in the soil were the most affected with the scab, or a roughness, while those that grew nearest the surface were smooth and fair. This peculiarity was not noticed at first, but was after digging a few bushels, and then attention was given to see if such was indeed the fact, or whether only a chance hill or so was in that way; but when hill after hill had been dug, the fact was fully established. Whether it was the season (which has been very dry one here) or the soil, or both, I am unable to say. I should like to have the experience of other cultivators, if they have noticed any such results in their crops during the past year. The portion that had only the phosphate as a fertilizer yielded nearly as well as those rows which had the compost and fertilizer both. The crop was an extra good one, and the portion that was slightly hilled was the best in yield; the potatoes lay nearest the top of the ground and were the easiest to dig. The experiment has convinced the writer that 500 bushels can be grown, on an acre of good land adapted to the growth of potatoes, in a good season, if well fertilized and well tilled, and planted to some productive sort. I will name as such sort with me, the White Star; it may not do so well with others, but so far as I know it is one of the best potatoe grown."

## Are Creameries Profitable?

Prof. L. B. Arnold in the New York *Tribune*, says: "Though creameries, as generally carried on, fail to do exact justice between their patrons, they are on the whole profitable. While they make no better butter than can be made in private dairies, they never make any as poor as many of the private dairies do. Creameries turn out butter of a uniform grade and excellent in quality, while no two dairies make butter alike, which is very much against the commercial value of dairy butter. No dealer can pay as much for an assortment of all kinds of butter as he can for butter of a uniform quality. On this account he prefers to give from five to ten cents a pound more for creamery than for dairy butter, and this difference makes the creamery system pay. The cost of manufacturing is less at the creameries than in the dairies, and the former average more butter from a given quantity of milk because they employ better appliances and more skill. Creameries also pay by way of relieving the farmer's wives and daughters of great deal of very hard work. They are, however, not so important in this respect as they were a few years ago. The improvements which have made of late in butter making appliances have made it possible to raise cream quite as well and as perfectly on the farm as it can be done anywhere, and to do all the work of butter-making with great ease and with much less labor than it was formerly done. This powder is made up of countless myriads of little black balls, called spores, which serve to reproduce these plants, as seeds reproduce the higher plants. Now, every smutted ear left in the field is a seed for the production of more smut the next year. It has been shown by experiment, as well as by direct experiment, that there is always more smut in those fields where there had been smut the year before. The lesson is, therefore, obvious, gather and burn all smutted ears."

## Feeding on the Ground.

One of the most wasteful practices in sheep husbandry is the too common one of feeding on the ground. Go where you will, you find some farmers feeding their sheep on the ground in the worst weather that ever stormed. They throw the hay on the soggy wet ground to be trampled down in the mud. And the same way of feeding grain is practiced. It is thrown on the ground and in wet days much of it is lost. The expense of making feed troughs and racks is so small that the waste of one season's feeding on the ground for a sized flock would more than pay for all necessary appurtenances of economic feeding. What is more, as every flockmaster knows, sheep are very particular about their feed; and if it is the least bit damaged will not touch it. And this system of feeding often forces the flock to go without a meal rather than touch the feed when wet and muddy. Consideration for dumb animals should have some weight with their owners; but if it has not, the knowledge that the flock will thrive much better, and the loss will be much less in number, should certainly have the effect of turning the farmer's attention to the advantages of feeding in troughs and racks.

## Canada Thistles.

A correspondent of the *Germantown Telegraph* writes to that paper his method of warfare with this farm nuisance: "I have been fighting thistles ever since they made their appearance in Iowa, some thirty years ago, and find but little difficulty in killing them, and could exterminate them if my neighbors would do as I do. I make it a rule to go over the whole ground in the month of August, when they are in blossom, and with a sharp hoe cut them off even with the ground. All that are thus cut off are sure to die, root and branch. The thistle does not blossom the year it starts from the seed. The first year it is a low spreading plant somewhat resembling the dandelion, and is thus difficult to find among grass or stubble. But few people seem to know anything about this first year's growth, and it takes them two years to make their seed; but it is this habit that deceives so many persons. They will cut off a thistle and the next year find it growing again as they suppose, when, in fact, it is a last year's plant come to maturity near the old stalk that was cut down."

## Holstein Cream.

The following story is told of a trial of Holstein cream at one of the Maine factories. Some of the patrons became dissatisfied because one of their number kept a Holstein herd that yielded a large quantity of milk, which was believed better suited to the milk dealer than the butter maker. A trial was made at the factory by churning the Holstein cream separately, when it was found that it exceeded the average of the cream furnished by the whole number of patrons. It is needless to add that the Holstein breed fed his cows well, and that there was no further complaint from the owners of either breeds."

## Feeding "Store" Cattle.

One great specialty in agriculture is the breeding and feeding of beef cattle for market. The expert in this business has learned that there must be, for the highest profit, no stand-still in the life of the beef animal. Where there is no growth, the food eaten is lost. All growth comes from the extra food; if only enough is given to support the animal, it will remain stationary, without any increase in

## Agricultural Items.

A CORRESPONDENT OF THE N. Y. TRIBUNE says farmers do not realize how great is the shrinkage in farm products by holding over. Potatoes will shrink seven barrels in 100 by storing till spring. Grain loses from five to eight lbs. per bushel, and hay about one-third in weight.

A WISCONSIN farmer claims to have found a sure cure for potato bugs. His plan is to put one or two fox seeds in each hill of potatoes. He says that the bugs will shun it every time, and for ten years he has thus been successful in growing potatoes while others have failed.

A cow giving milk should never be fat. Either the milk is deficient in quantity or quality, often both. The best cows are never free looking animals, except to the eye of an expert, who can see behind the rough and bony frame evidence of good milking qualities.

The stock pens at the Dominion Exhibition, held in Montreal last month, were "a mass of emptiness," according to the Canadian Farmer's Advocate. The reason was a "disruption between exhibitors and officers. The latter issued an order declaring all stock must be held in the grounds for ten days. The farmers objected on the ground of wasting so much time, and the extra expense. The directors stood firm; the farmers combined and refused to exhibit; result as might be expected. By this, says the Advocate, the lesson is to be learned that the farmers' interests are the first to be consulted in arranging for an agricultural exhibition.

## Corn Smut.

Prof. C. E. Bessey, of the Iowa Agricultural College, says on this subject:

"This disease of Indian corn is well known to be due to a minute parasitic plant which gains access to the corn plant early in the life of the latter. Careful microscopical examinations show the parasitic growths to be present even in the lower joints of the corn, and they have been seen in all the intermediate parts. The parasite grows in the form of very minute slender threads, which penetrate the tissues of the corn and thereby gain nourishment for growth. The threads grow until they finally reach the young kernels, where they find such abundance of nourishment that they burst out into the too well known smutty growths, which are so common some seasons. Now these smutty growths are the fruiting places of the parasite. Cut open such a growth when it is young, and you will find it to be white and of fibrous structure. A little later it begins to show dark streaks, and still later it begins to dissolve into a black, inky slime. The water soon evaporates from this slime, and leaves a powdery mass, which puffs out and blows away with the slightest touch."

H. TALCOTT, in the Ohio Farmer, says: "The Bohemian oats, or the bulleus oats, or Pringle's bulleus oats, or any other member of this particular oat family, are a perfect fraud. Why? First, because they will not produce more than half as many pounds of grain per acre as the best varieties of common white oats, with the same cultivation and soil to grow on. Second, they will not make any better oatmeal than the heavy white oats that weigh from 38 to 45 lbs. to the bushel, except there is a very trifling better yield in quantity of flour and less bran. Third, they are not fit to feed without grinding. They look more like rye than common oats and could not be fed without grinding any better. Fourth, they are harder to thresh and prepare for market. They weigh about 50 pounds to the bushel and are worth for feeding purposes about 50 to 60 cents in this market, which is all their value. But no man can afford to raise them, even at this price, for the seed."

## WHAT STOCK MEN SAY OF THEM.

ABERDEEN, Ill., Nov. 10, 1884.

I keep your remedies and send them to all owners of stock to give them a trial, believing them to be good and reliable. I am a stockman.

Fres. State Board of Agriculture.

Fairbury, Ill., Nov. 10, 1884.

I have used your remedies and they certainly possess all the merit claimed for them. I keep them constantly on hand for my stock and have found them to be equal to any other product.

JOHN VIRGIN, Pres. Nat'l Norman Horse Ass'n.

Ottawa, Ill., Oct. 21, 1884.

We have used your remedies and pronounced them to be most efficient. We have ever had.

EDEN.

ARLINGTON, Ill., Oct. 22, 1884.

I have used your remedies and they certainly possess all the merit claimed for them. I keep them constantly on hand for my stock and have found them to be equal to any other product.

JOHN VIRGIN, Pres. Nat'l Norman Horse Ass'n.

Ottawa, Ill., Oct. 21, 1884.

Very truly, J. H. McEEWEN, with C. M. REED.

JAMES BENNETT.

Mr. James Bennett is proprietor of one of the oldest livery and training stables in Cleveland, and is well known as a skillful, well-informed horseman, and gentleman of integrity and character. Lawrence, Williams & Co., Cleveland, O., are the sole proprietors for Gobault's Caustic Balsam.

ONE OF THE MOST WASTEFUL PRACTICES IN SHEEP HUSBANDRY IS THE TOO COMMON ONE OF FEEDING ON THE GROUND. GO WHERE YOU WILL, YOU FIND SOME FARMERS FEEDING THEIR SHEEP ON THE GROUND IN THE WORST WEATHER THAT EVER STORMED. THEY THROW THE HAY ON THE SOGGY WET GROUND TO BE TRAMPLED DOWN IN THE MUD. AND THE SAME WAY OF FEEDING GRAIN IS PRACTICED. IT IS THROWN ON THE GROUND AND IN WET DAYS MUCH OF IT IS LOST. THE EXPENSE OF MAKING FEED TROUGHES AND RACKS IS SO SMALL THAT THE WASTE OF ONE SEASON'S FEEDING ON THE GROUND FOR A SIZED FLOCK WOULD MORE THAN PAY FOR ALL NECESSARY APPURTENANCES OF ECONOMIC FEEDING. WHAT IS MORE, AS EVERY FLOCKMASTER KNOWS, SHEEP ARE VERY PARTICULAR ABOUT THEIR FEED; AND IF IT IS THE LEAST BIT DAMAGED WILL NOT TOUCH IT. AND THIS SYSTEM OF FEEDING OFTEN FORCES THE FLOCK TO GO WITHOUT A MEAL RATHER THAN TOUCH THE FEED WHEN WET AND MUDDY. CONSIDERATION FOR DUMB ANIMALS SHOULD HAVE SOME WEIGHT WITH THEIR OWNERS; BUT IF IT HAS NOT, THE KNOWLEDGE THAT THE FLOCK WILL THRIVE MUCH BETTER, AND THE LOSS WILL BE MUCH LESS IN NUMBER, SHOULD CERTAINLY HAVE THE EFFECT OF TURNING THE FARMER'S ATTENTION TO THE ADVANTAGES OF FEEDING IN TROUGHES AND RACKS.

ONE OF THE BEST AND LEAST TROUBLING METHODS OF PRESERVING EGGS FOR WINTER USE IS TO PACK THEM IN SALT. EGGS PACKED IN SALT TAKE THE FIRST PRIZE AT THE BIRMINGHAM (ENGLAND) POULTRY SHOW. THOSE TAKING THE SECOND PRIZE WERE PREPARED ACCORDING TO A RECIPE PUBLISHED IN THE FARMER AT THE TIME IN WHICH WHITE WAX AND SPERMATE WERE MIXED AND APPLIED TO THE EGGS AFTER RUBBING THEM WITH RICE FLOUR AND WRAPPING IN TISSUE PAPER.

HENS FED ON REGULAR DIET OF CORN WILL NOT LAY AS MANY EGGS AS IF THEY WERE FEED IN A VARIETY OF OTHER GRAINS. A VERY WHOLESALE DIET FOR FOWLS DURING COLD WEATHER, AND EXCELLENT FOR PRODUCING EGGS, IS FOUND IN A WARM MIXTURE OF BOILED POTATOES, MIDDLEDS, GROUND OATS OR BARLEY MEAL, WITH DRY MUSTARD, PEPPER OR GINGER, MIXED FOR BREAKFAST; SCRAPS FROM THE TABLE, BOILED VEGETABLES, PIECES OF MEAT AND SCREENINGS FOR DINNER; THE SCREENINGS TO BE SCATTERED THROUGH THE LOOSE CHAFF OR DRY LEAVES ON THE HENHOUSE FLOOR TO GIVE THE FOWLS EXERCISE; CORN AND BUCKWHEAT OR CORN AND BARLEY FOR SUPPER.

FANNY FIELD SAYS, IN THE OHIO FARMER: "NINE-TENTHS OF THE EGG PRESERVING RECIPES THAT DIFFERENT PARTIES OFFER TO SEND ON RECEIPT OF \$1 OR \$2, OR AS A PREMIUM FOR SOMETHING OR OTHER, HAVE BEEN PUBLISHED TIME AND TIME AGAIN IN HALF THE NEWS AND POULTRY PAPERS IN THE COUNTRY. SOME OF THE FELLOWS WHO ARE ANXIOUS TO GET A LIVING SOME 'EASY' WAY—NO MATTER HOW DISHONEST IT MAY BE, SO THAT IT DOES NOT BRING THEM WITHIN REACH OF THE LAW—GET HOLD OF THESE RECIPES, ALTER THE WORDING A LITTLE, AND IN SOME CASES ADD ANOTHER HARMLESS AND USELESS INGREDIENT TO THE PICKLE, AND THEN ADVERTISE. THERE IS NO NEED FOR ANY ONE WHO DESIRES TO PRESERVE EGGS, EITHER FOR HOME USE OR FOR MARKET, TO BUY ANY RECIPE, FOR THE BEST HAS BEEN PUBLISHED OVER AND OVER AGAIN IN THE NEWSPAPERS OF THE COUNTRY."

HOLSTEIN CREAM.

THE FOLLOWING IS TOLD OF A TRIAL OF HOLSTEIN CREAM AT ONE OF THE MAINE FACTORIES.

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**Horticultural.****THE CULTURE OF THE CURRANT.**

To the Editor of the Michigan Farmer  
On returning from a recent trip I found a letter awaiting me, asking some information in regard to currant culture; with an added request that I would reply through the FARMER.

The communication requested information in regard to the values of different varieties, methods of culture, soil, fertilizers, etc. I am testing several new varieties, but so far find the old Red Dutch the most reliable and profitable. I have grown the White Grape and the Red Cherry, the latter quite extensively, and like them well, their large clusters being very attractive, and finding a ready sale at high prices, but they suffer from frost and other damaging influences much more than the common red, are shyer bearers, and not so prolific. I prefer to plant rows eight feet apart, two and a half or three feet apart in rows. By this means much of the work can be done with a horse. If hand work is desired, the rows may be nearer. Work thoroughly; keep clean. Keep the bushes in compact form, trimming off straggling branches and old wood, that is, wood three years old; cut off and burn any stalks in which the borer is detected. This may be known by observing the leaves on the branch looking wilted and yellow, when close scrutiny will show the place where the borer entered, then, by splitting the wood, his track will be found.

For soil, anything that will grow a good crop of potatoes or corn is a good soil for the currant. While no fruit will bear neglect better than the common currant, the improved varieties demand good care; none will respond more generously to thorough culture and high fertilization. In my experience, nothing is better than barnyard manure, but any fertilizer, or coal and wood ashes, are excellent. As to the currant worm, "eternal vigilance" is the price of an advantage over him. White hellobore is effectual, used either dry or in water, but is expensive if one has a large plantation. The worm is often found almost before leaves are opened; early, persistent, ceaseless watching is the only sure remedy. A person soon becomes expert in detecting the perforated leaves. Pick them off, and crush the insects, or take them away in some package and burn them. Before fruit is set a sprinkling of Paris green in water, (a teaspoonful to a gallon of water,) is effectual, but is unsafe to use after fruit sets.

In sending for plants one is not certain of getting their orders correctly filled. My first experience was not pleasant, as in a large lot only four plants proved true to name. Other ventures have proved more satisfactory. I prefer to grow my own plants when practicable. If one can get a few plants pure, he can soon raise a supply. Cut them back severely in early autumn, cut the branches into sections about eight inches long, stick them into clean, moist soil three inches apart, leaving them two inches or less out of the ground. When hard frosts are expected draw the earth over them, covering them entirely, or mulch them to the same extent. As soon as the freezing and thawing weather of spring is over, uncover them, press back that may have been forced out, keep them clean, and the next spring you will have a fine lot of thrifty plants ready for setting, although they may stand until two years old, or be transplanted in the fall as may be desired.

A request was made that we refer the writer to some reliable work on currant culture. I would say to this that a good reliable paper like the MICHIGAN FARMER is the best source of information I have found on this and kindred topics. We here meet with the recorded experiences of practical men, and the actual results of their experiments. This, with the experience of the amateur, gained from day to day, I have found the most reliable.

Clean, thorough culture, unceasing, careful watching, I have found the only secrets of successful culture of the currant.

T. LANGLEY.  
GREENFIELD, Mich.

**FLORICULTURAL.**

ROSES will stand any amount of manure, and will exhaust the soil in two or three years. Change in soil is essential to fine thrifty plants and large, perfect bloom. The reflection of the sun from the snow, in the spring, when the sap is just starting, will burn the bushes; a little litter thrown over them will prevent this.

A SUCCESSFUL florist makes his soil for pot plants of a mixture of turfy loam, garden mould, well-rotted manure, and sharp sand, in the proportion of one-third loam, one-third garden soil, and the other third made up of the manure and sand. For strong-rooted plants he adds less sand than for those having many small roots. In all cases he adds sand enough to keep the soil from becoming heavy. Some plants, like fuchsias, prefer leaf mould, and will do better in it than anything else, yet fine plants are grown in precisely the same soil given to geraniums. Amateurs do not pay sufficient attention to the item of sand. This florist would sooner omit the manure than the sand.

As the culture of the crysanthemum has come in fashion again, every one will be vying with his neighbors as to who shall have the best ones. As they soon root after lifting, do not allow them to suffer want of water, or the flowers will be apt to open imperfectly. Keep them light and cool, and if extra flowers are wanted, do not allow too many buds to remain on the plants—judiciously thin them out.

Cuttings must be of well-ripened wood. Some say to take large ones, but I prefer a medium size. They may only have one bud, or as many as can be cut on a growth of six inches. Perhaps two or three buds are the best numbers. Cut immediately below the lower bud and

about an inch above the upper one. Make a smooth, slanting cut, on the side opposite the bud. Cuttings of single buds are generally made when wood is scarce or when the variety to be propagated is rare and valuable; but such cuttings are often made when common varieties are to be propagated extensively.

**Cross Fertilization.**

The natural order of Rosaceae. To this important family of plants belong not only the roses and their immediate allies, but all our most important fruits except three. True, they seem unlike each other; there is such a contrast between the strawberry and apple, the raspberry and pear, the blackberry and the quince, the medlar and plum, the June berry and peach, the dewberry and the cherry. They all agree, however, in the general plan of the structure of the flower, which can be easily studied when the various genera of this order are in bloom.

The origin of the pulpiness in these fruits was quite antecedent to any adoption of their stocks in the primitive orchards of early man. So far as we can now tell, the rose tribe does not date back in time beyond the tertiary period of geology. The very earliest members of the family, still extant, are little creeping herbs like the cinquefoil and silver weeds, with yellow blossoms, and small, dry, inedible seeds. Among fruits, the strawberry is the lowest type of the rose family above these simple forms. It is still, and always will be, a creeping herb, multiplying itself by stolons. Its seeds are small, dry and inedible, but they are imbedded in a delicious juicy pulp, which entices not only birds and mice, but man also to eat eagerly the dainty morsel. Among the so-called "small fruits" it is not only the most beautiful and delicious, but, being the first which comes to us after the cold, fruitless winter, it is peculiarly grateful to the palate. It is ubiquitous in its distribution, and one of the other of its species is the delight of savage and civilized men in every part of the Temperate Zone.

Next in order after this earliest succulent type come the blackberry, dewberry and raspberry, where the individual carpels and nutlets are covered with a soft, sweet pulp, instead of remaining dry and hard on the surface, as in the strawberry. In these three fruits we find the structure of the strawberry but slightly modified; yet this change clearly marks a step in advance, seeing that they are enabled to thrive much better in the struggle for life, being developed into stout woody trailers, often forming considerable prickly thickets and killing down all lesser vegetation beneath and between them.

Again, the dog-nose and the innumerable varieties of garden roses show still higher development in their erect, bushy form, but in their large, many colored flowers, and in their big scarlet hips they differ. The fruit they bear is simply a prolongation of the tube of the calyx, turned red and fleshy; the carpels are no longer found outside, but in the interior, changed to hard, bony seeds. We find this tribe ascending higher in the haws of all the species of the white thorn (*Cra-tagus*); its fruit is more successful in attracting birds, as it has been enabled to produce a more showy and abundant fruit, with a thicker and richer pulp, and to reduce its seeds to one or two, each enclosed in a bony, indigestible nut.

The apple and its allies are constructed very nearly upon the same plan, the principal difference being that the ovaries and the tube of the calyx completely coalesce and form one body, which becomes the fruit. The eye of the apple marks the point from which the calyx spreads out. The principal part of the flesh of the apple consists of the tube of the calyx, but in its interior are found the carpels, whose thin walls are bony and

therefore difficult to penetrate.

Atkins' *House Plants*.

The *Gardeners' Monthly* says: In the management of house plants the successful household seldom worries about repotting often. The plants having plenty of roots in a smallish space can take a great deal of water without injury; not being overpotted they do not get overwatered. Then tender fingers often turn over the leaves, and if an insect pest appears it is done for at once. These ravagers are not allowed to remain long enough to do much damage, and hence there is no worrying over tobacco, soap, hot water or some other nauseous compound to be employed to put things to rights again. Success with house plants cannot be taught by a magazine, it must be born of love and mastered by experience.

There is quite an art in lifting plants from the open ground into pots if they are to go on and bloom all the winter time. It will not do to let the leaves wilt much or they will not get up again. They have to be taken with reasonable ball, put into the smallest possible pot, well watered at once, and placed temporarily where the dry air will not draw the moisture from the leaves. The florist who has to lift bouvardias and crysanthe-mums from the open ground to benches in the greenhouse, so as to have them in flower all winter, keeps the greenhouse closed for a few days, so that the moisture cannot get out. He syringes to the atmospheric moisture, and often shades the glass, for it is known that light is as great an evaporator of water as heat itself.

**Some of the Newer Grapes.**

When the late Mr. Robert Buist entered the room where the Concord grape was being shown for the first time, he exclaimed: "That fruit will not suit me; it is too foxy; the aroma is sufficient without testing it." But the public taste has been cultivated to approve the slight musky flavor and, as a rule, a majority of our people prefer a grape possessing this character. It may be accused of pomological heterodoxy, but the fact is beyond dispute that some people really prefer the Concord to the little "high toned" Delaware, and simply because the former has a slight foxy taste. The greater portion of our new varieties either possess this flavor undeniably, or else leave in one's mouth a faint, though unmistakable, musky tinge.

For myself I am rather partial to a little muskiness, as I am to the muscat flavor of some foreign grapes; and, therefore, I like the Pocklington. With me, this season it has done well. Fine, large clusters, of a beautiful golden amber color, when of fair quality, are valuable for the outdoor vineyardist, and this variety fills the cellar at first, and gradually brings them near the furnace as they show signs of growth, and when they begin to send up stems water freely; they do not require light at all, the growth is all produced at the expense of the strength of the large root; when done with they are so much exhausted that hardly pays to plant them out in the field."

SAYS W. D. PHILBRICK, in the N. E. Farmer: "Rhubarb roots may be easily forced by digging them up in fall, and placing them in tubs of earth, made by sawing in two a four or five barrel; place these tubs in a cool part of the cellar at first, and gradually bring them near the furnace as they show signs of growth, and when they begin to send up stems water freely; they do not require light at all, the growth is all produced at the expense of the strength of the large root; when done with they are so much exhausted that hardly pays to plant them out in the field."

**THE AMERICAN CULTIVATOR** says mulching is one of the most important operations in horticulture, and it should be more generally appreciated and practised. A mulch protects the ground from scorching suns and from searing droughts. Where the plow and hoe cannot be used, a good top-dressing each year will keep down the grass and weeds, and will supply many of the demands of cultivation. In the case of strawberries and some other fruits a mulch keeps the fruit clean. It is always a good winter protection. Almost any coarse material makes an acceptable mulch—coarse stable manure, straw, sawdust, bags, faggs, sedges, fine brush, poor hay, coal ashes, etc.

**AYER'S SARSAPARILLA**

Has been tested by and received the unqualified commendation of 4,000,000 families in the United States, and 7,000,000 families throughout the world.

**AYER'S SARSAPARILLA**

Has the only Blood Purifier, which has gained and retained the confidence of the people of tropical countries, where such medicines are in great demand.

**AYER'S SARSAPARILLA.**

MILTON FULTON, the largest land-owner and one of the wealthiest *Co. Mass.*, credits his cure of Scrofulous Humor and Dyspepsia to the thorough purification of his blood by

**AYER'S SARSAPARILLA.**

WARREN LELAND, the famous *New York* landlord, testifies from his own knowledge, that for the cure of Liver Disorders, Gout, Salt Rheum, and various results of high living, there is no medicine equal to

**AYER'S SARSAPARILLA.**

HIRAM PHILLIPS, *Glover, Vt.*, attests the cure of Hereditary Scrofula, in three generations of his family, by

**AYER'S SARSAPARILLA.**

THOS. N. COOK, *West Somerville, Mass.*, was cured of severe *Eczema*, and rescued from a rapid decline, by

**AYER'S SARSAPARILLA.**

THE SISTERS OF CHARITY, *Dorchester, Mass.*, vouch for the Alterative and Curative virtues of

**AYER'S SARSAPARILLA.**

JOHN J. RYAN, *Philadelphia, Pa.*, was cured of Neuralgia, Prostration, and Derangement of the Vital Organs.

**AYER'S SARSAPARILLA.**

D. B. KIRK, *Bid. Springs, Ohio*, testifies that his son, fifteen years old, was cured of Catarrh in its worst form, by

**AYER'S SARSAPARILLA.**

AMHERST WHITMORE, *Brunswick, Me.*, retired sea-captain, was cured of a Cancer by

**AYER'S SARSAPARILLA.**

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**AYER'S SARSAPARILLA.**

DR. J. C. AYER & CO., [Analytical Chemists] *LOWELL, MASS.*

Sold by all druggists; price \$1; six bottles for \$5.

**Ayer's Sarsaparilla,**

PREPARED BY

DR. J. C. AYER & CO., [Analytical Chemists] *LOWELL, MASS.*

Sold by all druggists; price \$1; six bottles for \$5.

**NEW ADVERTISEMENTS.****Catarrh**

Is undoubtedly caused by impure blood. Hence a medicine which purifies the blood removes the cause of the disease and opens the way for a thorough cure. This is exactly what Hood's Sarsaparilla does, and it makes the cure complete by giving the system health and strength, and enabling it to throw off the depressing effects of the disease.

**Catarrh**

Is permanently cured by Hood's Sarsaparilla. Mr. A. Ball, *Syracuse, N. Y.*, says: "Hood's Sarsaparilla has helped me more for catarrh and impure blood than anything I ever used."

"I have taken Hood's Sarsaparilla for catarrh, and think it has done a great deal of good. I recommend it to all within my reach. Hood's Sarsaparilla has been worth everything to me," LUTHER D. RIBINS, *East Thompson, Conn.*

**Catarrh**

May be breaking down your health. Be wise in time! That from the nose, ringing noise in the ears, pain in the head, inflammation of the throat, cough, and nervous prostration will be cured if you take Hood's Sarsaparilla.

"I had trouble by general debility, caused by catarrh and humors. Hood's Sarsaparilla proved just the thing needed. I derived an immense amount of benefit from it."

H. F. MILLER, *Boston, Mass.*

**Hood's Sarsaparilla**

Sold by all druggists. \$1; six for \$5. Made only by C. L. HOOD & CO., Lowell, Mass.

**100 Doses One Dollar.**

**PUZZLE.**

N. H. DOWNS'

FOR COLDS

CONSUMPTION

AND COUGHS.

ELIXIR.

**CONSUMPTION**

has been cured times without number by the timely use of Dow's Elixir. It will cure Croup, Bronchitis, Asthma, Pleurisy, Whooping-Cough, Lung Fever, and all diseases of the Throat, Chest and Lungs, when other remedies fail.

For sale by all dealers.

HENRY, JENSON & LORD, Prop'ts, Burlington, Vt.

**HOUSE PLANTS.**

The *Gardeners' Monthly* says: In the management of house plants the successful household seldom worries about repotting often. The plants having plenty of roots in a smallish space can take a great deal of water without injury; not being overpotted they do not get overwatered. Then tender fingers often turn over the leaves, and if an insect pest appears it is done for at once. These ravagers are not allowed to remain long enough to do much damage, and hence there is no worrying over tobacco, soap, hot water or some other nauseous compound to be employed to put things to rights again. Success with house plants cannot be taught by a magazine, it must be born of love and mastered by experience.

There is quite an art in lifting plants from the open ground into pots if they are to go on and bloom all the winter time. It will not do to let the leaves wilt much or they will not get up again. They have to be taken with reasonable ball, put into the smallest possible pot, well watered at once, and placed temporarily where the dry air will not draw the moisture from the leaves. The florist who has to lift bouvardias and crysanthe-mums from the open ground to benches in the greenhouse, so as to have them in flower all winter, keeps the greenhouse closed for a few days, so that the moisture cannot get out. He syringes to the atmospheric moisture, and often shades the glass, for it is known that light is as great an evaporator of water as heat itself.

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# MICHIGAN FARMER

State Journal of Agriculture.

A Weekly Newspaper devoted to the industrial and producing interests of Michigan.

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# The Michigan Farmer

State Journal of Agriculture.

DETROIT, TUESDAY, DEC. 2, 1884.

## WHEAT.

The receipts of wheat in this market the past week amounted to 112,463 bu., against 130,481 bu. the previous week and 121,584 bu. for corresponding week in 1883. Shipments for the week were 71,230 bu. The stocks of wheat now held in this city amount to 841,431 bu., against 810,507 last week, and 234,969 for the corresponding week in 1883. The visible supply of this grain on N-Wember 22 was 36,678,930 bu., against 36,576,635 the previous week, and 32,351,158 bu. at corresponding date in 1883. This shows an increase over the amount in the previous week of 102,304 bu. The export clearances for Europe for the week ending November 22 were 980,900 bu., against 1,297,440 the previous week, and for the last eight weeks they were 8,601,707 bu. against 6,648,073 for the corresponding eight weeks in 1883.

The record of business for the past week in this market is far below an average for this season of the year, transactions only amounting to 187 cars of spot wheat and 500,000 bu. of futures. Stocks here are light, but the visible supply is largely in excess of former seasons. There has been a slow and dragging market, with values ranging steady, and the week closing with prices at about the same range as a week ago. Yesterday this market opened weak and depressed, with values tending downwards, and fully 1¢ all round was lost as compared with Saturday's closing figures. Chicago was weak and lower on account of heavy receipts. No. 2 red sold there at 73¢ at the close. Toledo was dull and lower, with No. 2 cash quoted at 69¢, and January delivery at 69¢@ 69¢. Cable advices were better, and the British markets were quoted stronger.

The following table exhibits the daily closing prices of wheat from Nov. 15th to Dec. 2d:

	No. 1	No. 2	No. 3	No. 4
white.	white.	red.	red.	green.
Nov. 15	71	72	73	74
16	71	71	73	74
17	71	71	73	74
18	71	71	73	74
19	71	71	73	74
20	71	71	73	74
21	71	71	73	74
22	71	71	73	74
23	71	71	73	74
24	71	71	73	74
25	71	71	73	74
26	71	71	73	74
27	71	71	73	74
28	71	71	73	74
29	71	71	73	74
30	71	71	73	74
Dec. 1	71	71	73	74

The following statement gives the closing figures on No. 1 white each day of the past week for the various deals:

	Dec.	Jan.	Feb.
Tuesday	76	77	77
Wednesday	76	77	77
Thursday	76	77	77
Saturday	76	77	77
Monday	75	75	76

The following statement gives the closing figures on No. 1 white each day of the past week for the various deals:

	Dec.	Jan.	Feb.
Tuesday	76	77	77
Wednesday	76	77	77
Thursday	76	77	77
Saturday	76	77	77
Monday	75	75	76

For No. 2 red the closing prices on the various deals each day of the past week were as follows:

	Dec.	Jan.	Feb.
Tuesday	76	77	77
Wednesday	76	77	77
Thursday	76	77	77
Saturday	76	77	77
Monday	75	75	76

The following statement shows the amount of wheat in sight at the dates given this season as compared with last year:

	U. S. and Can.	United Kingdom	Passage for Coat. of Europe
Total Nov. 15	35,578,635	13,538,000	3,660,529
Total previous week	53,704,625	53,570,229	52,069,532
Total Nov. 3, 1883	47,983,547		

It is expected that the amount of wheat "in sight" will be increased two to three millions of bushels in the next statement, after which it will probably have reached its highest point for the season and begin to decline.

There is nothing to report in the outlook that gives promise of a better market in the near future. Stocks are generally large on both sides of the Atlantic, trade depressed, and speculation nearly dead. In Great Britain receipts of home grown and foreign wheat were both declining, and for the week ending Nov. 22 were estimated at 1,030,000 bu. below the consumption. But stocks are so large there that it will require a number of such weeks to deplete stocks so as to make buyers at all anxious.

It is expected that the placing of a tariff upon foreign wheat by the French Government will affect the price of grain to some extent all over Europe.

The drought still continues in Australia, while that in India has been modified to some extent by light rains. Crops in the latter country are reported scanty.

The following table shows the prices ruling at Liverpool on Monday last, as compared with those of one week previous:

Duc. 1.	Nov. 24.	Per cent.
Flour, extra State....	10s. 9 d.	10s. 9 d.
do do do new.....	8s. 6 d.	8s. 6 d.
Spring.....	8s. 6 d.	8s. 6 d.
do do do.....	6s. 6 d.	6s. 6 d.
Winter Western.....	6s. 6 d.	6s. 6 d.

## CORN AND OATS.

The receipts of corn in this market the past week were 33,699 bu., against 19,028 bu. the previous week, and 66,986 bu. for the corresponding week in 1883. Shipments were 26,845 bu. The visible supply in the country on Nov. 29 amounted to 4,326,497 bu. against 4,323,168 bu. the previous

week, and 8,884,165 bu. at the same date last year. The visible supply shows a decrease for Europe the past week were 29,705 bu., against 33,742 bu. the previous week, and for the past eight weeks 1,694,103 bu., against 8,877,534 bu. for the corresponding period in 1883. The stocks now held in this city amount to 14,846 bu., against 10,818 bu. last week, and 52,493 bu. at the corresponding date in 1883. The week closed with corn showing considerable activity, although at a decline in values as compared with last week. Considerable trading was done in both spot and futures on Saturday, with No. 2 selling at 37@37¢ per bu. in futures, new mixed at 36¢, and high mixed at 38¢. In futures No. 2 corn for delivery this week sold at and for May delivery at 38¢. The Chicago market has fluctuated sharply during the week, and finally closed under the prices reported a week ago. No. 2 spot is quoted there at 35¢@35¢ per bu., November delivery at 35¢, the year at 35¢, and January at 34¢. Toledo quoted dull at 38¢ for spot No. 2, the year deliveries at 37¢, and May at 38¢ per bu. The New York market is quiet and steady, and Kansas City the same. The following statement shows the visible supply in the United States and Canada, and on passage to the United States and the Continent of Europe at dates named, as compared with the same date last year:

Visible supply in U. S. and Can. .... 4,325,118  
On passage for United Kingdom ..... 1,068,000  
On passage for Coat. of Europe ..... 208,000

Total, Nov. 8. .... 5,001,118

Total two weeks ago. .... 6,648,142

Total Nov. 10, 1883. .... 10,729,626

Yesterday corn was lower in all the principal markets. No. 2 sold here at 37¢ per bu., and new mixed at 36¢, closing weak.

The Liverpool market yesterday was quoted steady at 5s. 3d. per cental for new mixed, and 6s. 6d. for old do., the same figures as reported a week ago on old mixed.

The New York market is quiet and steady, and Kansas City the same. The following statement shows the visible supply in the United States and Canada, and on passage to the United States and the Continent of Europe at dates named, as compared with the same date last year:

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as he pulled the trigger. Three shots followed him, none unfortunately hitting him.

The annual report of the superintendent of the life-saving service shows that during the past year there were 439 disasters, affecting \$10,000,000, of which \$9,161,354 worth of property was saved. Over 4,400 persons were lost in the disasters, while only 200 were lost. The names of none of these could have been presented by the life-saving corps, as they were severely beyond human aid.

At Philadelphia, Pa., the house of George White was entered on the 26th by six masked men, who held revolvers to the heads of the family while they were tied hand and foot. The thieves then searched the house, secured \$250 and some jewelry, then prepared to leave. The wife, who was one of the best they could find in the house, played a tune on the organ and then left, leaving the family still bound. No clue.

The schooner Helen Angel arrived at Lewes, Del., on the 27th, having on board two sailors who had conveyed a pilot to the steamship Philadelphia, and were afterward unable to return their pilot boat, owing to the high sea running. They were tossings about in the surf for 60 hours. Their mate, a Norwegian, died, and they buried his flesh to sustain life.

Mrs. Rachel Russell, of Geneva, N. J., committed suicide a few ago, and on the inquest it was ascertained that she possessed \$50,000 worth of property. She had not relatives with whom she had no quarrel. A short time ago she bought property expecting to lay it off for a residence, but the York Central & Hudson River Railroad, the division not declared, a railroad war in passenger rates began and Miss Russell became disappointed through fear of losing her property, and took her own life.

**Foreign.**

Fanny Elsler, the once world-renowned dancer, died at Vienna last week, 73 years old.

The steamer Dover was sunk in a collision in the Straits of Dover, off Dunkerque, on the 28th, and 30 passengers drowned.

The paper population of England exceeds by some 100,000 souls the entire population of the great colony of New South Wales.

Despite the distress in the North of England this autumn, there is a decrease in the returns of papers as compared to last year, and a very decided diminution in crime.

The steamship Mallia, from Genoa with 1,000 emigrants, has been refused entrance to Buenos Ayres, which is open only to steamers which left Genoa after the 19th inst.

A crane capable of lifting 147 tons is being erected at Hamburg. It will be the largest on the continent, the next being that already erected at Antwerp, which is capable of lifting 120 tons.

In Paris last week the wife of Deputy Clouys Hugues was killed. M. Mornan, commissioner at the Palais de Justice, because he had shot her. She fired six shots at her victim, four of which lodged in his chest.

The proposals for the settlement of the Egyptian debt which have been sent by the English Cabinet to the powers are: First, offer to raise a loan of £5,000,000 sterling, to be given by England; second, issue £5,000,000 of registered stock, Egyptian security, third, re-assume the interest on the debt put down to one-half per cent.

Catarrh is a very prevalent and exceedingly disagreeable disease; liable, if neglected to develop into serious consumption. Hood's Sasparilla, acting through the blood, reaches every part of the system, effecting a radical and permanent cure of catarrh. 100 doses \$1.

**NEW ADVERTISEMENTS.**

**The Bignell Post Power**

NEW ADVERTISEMENTS.

NEW ADVERTISEMENTS.



Sold by all Hardware Dealers.  
Tested and Endorsed by 100 Agricultural Journals.  
Farm and Household.

"After testing, each editor immediately ordered an Enterprise Meat Chopper for his family use."

We prefer you buy from your Dealer. If he is out of them, send money to us. We will ship by next fast train.

## DIRECTORY

-OF-

### Michigan Breeders.

#### CATTLE.—Shorthorns.

**A. CHANDLER**, breeder of Shorthorn cattle, Shropshire sheep and Essex swine. Stock for sale. Correspondence solicited. Jerome.

**D. DEGARMO**, Highland, Oakland Co., breeder of Shorthorn cattle. Young stock for sale at reasonable prices.

**E. ANDREWS**, Maple Valley Stock Farm, Willington, Indiana Co., breeder of thoroughbred Shorthorns of good families. Also agent for the Celebrated Champion Creamer.

**R. COOK**, Brooklyn, Jackson Co., breeder of Shorthorn cattle. Good families represented. Bull Major Cragg at head of herd.

**C. L. HARRISON**, Lansing, breeder of and dealer in Holstein cattle. Stock for sale and Correspondence solicited.

**E. R. PHILLIPS**, Bay City, breeder and importer of Dutch Friesian cattle. Correspondence solicited. Intending purchasers invited to call and inspect stock.

**J. M. STEERLING**, Monroe, breeder of Dutch-Friesian cattle. Stock for sale. Correspondence and personal inspection solicited.

**M. L. SWEET**, Holly Bank Stock Farm, Grand Rapids Mich., importer and breeder of thoroughbred Holstein cattle. Stock for sale. Terms reasonable.

**GODEN COLE**, Rollin, Lenawee Co., breeder of pure Holsteins of best milking strain from imported stock. Onderdonk 1868 at head of herd. Females and young bulls for sale.

**R. WYLLIE & PHILLIPS**, Orchard Side, Holland, Michigan Co., breeders of registered Dutch Friesian cattle. P. O. address other Utica or Mt. Clemens, Macomb Co., Mich.

**C. H. WASHINGTON**, Littlefield, Hillsdale Co., R. breeder of and dealer in thoroughbred and imported Holstein cattle. First-class stock for sale. Stock for sale.

**W. K. SEXTON**, Howell, importer and breeder of thoroughbred Holstein cattle. Stock farm three miles south.

**J. H. THOMPSON**, Romeo, Macomb Co., breeder of Thoroughbred Registered Merino sheep; also Polon.-China Hogs. Stock for sale. Correspondence solicited.

**J. EVARTS SMITH**, Ypsilanti, breeder of thoroughbred Holstein cattle, registered in Vermont Register. Rams and females for sale. Terms reasonable, together with recent selections from some of the best flocks in Vt. Examine before purchasing elsewhere.

**J. E. ROGERS**, Saline, Washtenaw Co., breeder of thoroughbred Vermont registered Merino sheep. Stock for sale.

**J. S. BAMBER**, Highland, Michigan, Ontario Co., breeder of registered Merinos, bred from the best stocks in the state. Also high grade Rams and rams for sale at all prices.

**S. WOOD**, Saline, Washtenaw Co., breeder of Vermont and Michigan registered thoroughbred Merino sheep. Stock for sale.

**J. OHN M. MORNING**, Norwell, Jackson Co., breeder of registered Merino sheep. P. O. address, Clinton, Lenawee Co.

**H. HILLSDALE STOCK FARM**, Waterville, Berrien Co., Parsons & Baldwin, breeders of Percheron Horses, with imported Trojan No. 1868 at the head of the stud.

**O. W. PARISSE**, Flushing, Genesee Co., importer and breeder of Clydesdale draft horses. Lord of the Woods (2972) and Clinton (3207) and Clinton (1700). Stock for sale.

**PORLTAND BREEDING STABLES**, L. P. Ferguson, Proprietor, Stallions Young Chief, Loft, Portland Charley, George Wellington (Clydesdale) and Toronto Chief (Clydesdale) Address L. P. Ferguson, Portland, Ionia County

**PARKHURST & MOTT**, River Bend Stock Farm, Park, Augustus, breeders of registered Merino sheep. No. 1868, Conwood 1878, and Blackson 2200, in the stud. Stock for sale.

**R. E. BRAIDWOOD**, Almont, Lapeer Co., importers and breeders of thoroughbred Percheron horses. Stock recorded in French Breeding Stock Book. Stock for sale at reasonable prices. Also a series of Shorthorn cattle. Correspondence will receive prompt attention.

**Duroc-Jerseys.**

**JOHN W. FOSTER**, Flint, Genesee Co., importer and shipper of pure-bred Duroc Jersey Red swine, registered American Merino and Black-breed Red game fowl.

**DOGS.—Collies.**

**CHARLES INMAN**, Avril, Midland Co., breeder of thoroughbred Scotch Collie. Sheep pups from the best of stock for \$3. Correspondence solicited.

**"SCOTCH COLLIES."**

Lords of the Highlands. I am breeding them from the best and purest imported stock, and have made several additions to my kennel of colts of exceptional individual excellence. I have also three of the finest dogs in the world, Plymouth Rocks in the west. My Berkshires had been registered. Send for circular. Address J. A. ARMSTRONG, Owosso, Mich.

**POULTRY.**

**MRS. W. J. LAWRENCE**, Baile Creek, Lapeer Co., breeder of pure-bred Merino sheep. Stock for sale, correspondingly prompted.

**S. BREWSTER**, Hanover, Jackson Co., breeder of Vermont and Michigan registered Merino sheep. Stock for sale.

**PLYMOUTH ROCKS FOR SALE**. A few nicely marked, rich colored pairs, May hatch, at \$3.00 each. Please inquire. G. A. BAUMGARDNER, Clarksville, Mich.

**OHIO BREEDERS.**

**R. D. SLY**, Clarksville, Ohio, breeder of Registered Merino sheep. Ram Buckeye (1867), ewe with lamb by J. S. F. C. & N. A. Ward, head of flock.

**J. H. EATON**, Elyria, Ohio, breeder of improved Chester White hens. All broiler stock recorded. Stock for sale.

**H. HEADFORD**, Rochester Depot, Ohio, breeder of Registered Poland China Swine. Stock for sale. Correspondence solicited.

**SHROPSHIRE DOWNS.**

**D. HUBBARD**, Marshall, Mich., breeder and importer of Shropshire Sheep. Imported stock bred from imported sheep for sale. Write for prices.

**CARLOCK'S** imported and Michigan bred Shropshire sheep, the popular mutton and cheese sheep. Sheep for sale. Address W. C. Carson, Montcalm Co., Michigan.

**M. H. BLOW**, Flint Valley Stock Farm, Thorntown, Lapeer County, breeder of registered Merino sheep, Berkshire Swine, Road and Trotting horses, with stallions Flint and Mammoth, Jr., in the stud, with eleven males of Mammoth and Hambletonian breeding. Stock for sale.

**W. M. RADFORD**, Marshall, breeders of Merino sheep. Stock recorded in Michigan Register. Size, form and density of fleece specified. May 1st.

**W. E. KENNEDY**, Somerton, breeder of registered Merino sheep. Stock for sale.

**W. H. BERTRAM**, Addison, Lenawee Co., breeder of Vermont and Michigan registered Merino sheep. Stock for sale.

**VAN GIESON BROS.**, breeders of registered Poland China sheep. Stock for sale. Correspondence solicited.

**SHROPSHIRE DOWNS.**

**J. H. STANTON**, Proprietor, Woodlawn Farm, Bay City, Michigan, breeder of Shropshire sheep. Sheep for sale.

**J. H. HARGRAVE**, Oaklawn Farm, Bay City, breeder of pure-bred Shropshire sheep. Sheep for sale.

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**J. H. STANTON**, Proprietor, Woodlawn Farm, Bay City, breeder of Shropshire sheep

## Poetry

## THE OUTSIDE WORLD.

The Outside World on a winter's morning!—  
See what a splendor is round you spread!  
Diamonds, and the trees adoring,  
Glisten and, lean just above your head;  
Crisp is the air, and the white frost gathers  
With as the dews of your quick, brisk breath;  
Give me, among all the world's glad weather,  
This when the green earth sleeps in death.  
  
Over us, blue as the boundless ocean,  
Stretches the space of an azur sea,  
Far on its bosom, with swan-like motion,  
The last of a cloud fleet fade and flee.  
Sullen are the winds that were fiercely blowing,  
Silence and sleep are the masters here;  
Yet over the world is the glad sun glowing,  
Life, and the glories of life, are near!  
  
Close to the casement the white doves, cooling,  
Cold as the snow that chills their feet,  
Come for your welcome, with eager wing,  
Begging the crumbs that you gladly mete.  
Typical, they, of the world about you,  
Out of its want and its need it comes  
Through in the garner of good it doubt,  
Calling, as they, for your scanty crumbs.  
  
You in your home-life, warm and cheery,  
Now as the Christmas-time draws nigh,  
Think of the world that is bleak and dreary,  
Needy, forlorn, in the cold close by!  
Out of your casements lean and listen,—  
Hark for the cry that is heard without;  
Splendor and beauty may gleam and glisten,  
But souls be needy, and sick with doubt.  
  
O for the sweetness of Youth's free giving!  
O for the flow of the Christmas grace  
Out, where the want of the world is living,  
Into the hunger of every place!  
O for a time when the Christmas spirit,  
Precious as love, in all hearts impregnated,  
Seeing the need and the hunger near it,  
Shall bless with its bounty the Outside World!

## AUTUMN.

When the chestnut burs are opened,  
And the scarlet drop like hail,  
And the drowsy air is startled  
With the thumping of the fall—  
With the drumming of the partridge  
And the whistle of the quail.  
  
Through the rustling woods I wander,  
Through the jewels of the year,  
Seeking her that still is dear;  
She is near me in the Autumn,  
She, the beautiful, is near.  
—Bayard Taylor.

## Miscellaneous.

## DR. JERROLD.

The following manuscript having come into my possession, I am permitted to publish it on the sole condition that I am to substitute fictitious names and places as they appeared in the original, and it is almost needless to add, to this condition I have most cheerfully submitted:

## PART I.

Some years ago business called me to the city of Marseilles. Having never visited the French capital, and having a few days to spare, I spent them in Paris enjoying the sights of the gay city before continuing my journey to the south. The days passed rapidly, as all happy days do, and one evening I found myself in the Gare de Lyon seated in a first-class carriage waiting for the train to start. The days were long at this time of the year, and it being still quite light, I could discern my only neighbor to be a man of fifty, perhaps, and obviously a gentleman. His eyes struck me as being his most remarkable feature; they were beautiful eyes, and yet a quivering of the lids, the vacant way in which he looked at me, and many other signs which I knew well how to interpret, told me they were defective in strength. I judged that he could see me, for when I moved his eyes followed my motion, but I was persuaded that he could not distinguish my features or expression without the aid of the glasses which hung suspended by a silken cord. The warning-bell sounded, and the customary "en voire" and slamming of doors ensued. Suddenly a man's face was thrust into the carriage, and after a quick glance at my opposite neighbor his owner stepped in and took his seat in a far corner. The new comer brought no luggage with him—not even an umbrella or a cane. I remember this impressed me as being odd at the time, but as the man pulled his cap down over his rather handsome face, and kept his profile toward me, I gave him no further attention. The train started, and, running rapidly, we had probably gone thirty miles before it began to grow dark. Monotonous motion and the subdued light had caused a drowsy feeling to come gradually over me; I settled my head comfortably back against the cushions and prepared to sleep. I glanced at my dark neighbor in the far corner. Apparently he was already in the land of dreams; then I closed my eyes. Some minutes may have elapsed, and I was half conscious that I was half asleep when something—what, I cannot tell—caused me to open my eyes with a start. My far-off neighbor had returned in haste from the land of dreams; he was in the act of rising; a most rapid movement brought him to my opposite neighbor's side; he grasped the elderly gentleman's throat, thrust his hand into the inside pocket of his coat, and something white flashed before my eyes. His object evidently accomplished, the ruffian endeavored to retreat to his own side of the carriage, but the assaulted gentleman now held him in a grasp like iron. As I rose to assist the elderly party the man of the soft hat raised his clenched fist in the air—down it came, with such terrific force that the sound of the blow fairly sickened me; then he tore himself away, threw open the door of the carriage and jumped from the flying train. That was all. It was all over in a few seconds. Before I had time to collect my astonished thoughts the number of passengers had been decreased by one. When the power of action returned to me I turned my attention to my fellow-traveller, who lay groaning on the opposite seat, seemingly stunned by the blow he had received. I wiped the blood from his face with my handkerchief, and he muttered some words in French, which my limited knowledge of the language did not permit me to understand. He pointed then to the electric button by which train hands are communicated with; I obeyed

his gesture, and, touching it, in the course of a few minutes an employee came back to see what was wanted, and my neighbor held an excited conversation with him, of which I understood not a word. The employee pressing the button several times in a peculiar manner, the train gradually came to a halt. The engineer appeared on the scene, with other train officials and several passengers, who, in an inexplicable way, had scented something out of the usual run. Another consultation was held, then the train began to back, at first slowly, then with ever-increasing rapidity. Our compartment was now filled with a gestating and exitable crowd, all talking at once, and no one apparently paying the least attention to what anybody else was saying. As we approached the spot where the man was supposed to have leaped to his death the train slackened speed, and many anxious eyes were searching for such remnants of him as might still be in existence. Enterprising employees ran parallel with the train, searching on each side to a distance of 30 feet. This manner of proceeding was continued until it became certain that the spot must have been passed where the assault took place, and no man, either dead or alive, had been found, and as it was now quite dark, the search had to be abandoned, and the "rapide" forged ahead once more. In the confusion I managed to slip forward into another carriage. I knew the natural delay that would attend the investigation of such an affair, and I felt that I could be of little service in identifying the culprit, so completely had his soft cap hidden his features. Moreover, the week spent in Paris had made my business at Marseilles very pressing. On the whole, taking all these facts into consideration, I think I was justified in beating a retreat. Somewhat to my astonishment, no search was made for me, and I arrived safely at my destination the following day, where I read in the newspapers a full account of the tragedy to which I had been an eye-witness. My weak eyed neighbor, I found, was one of the prominent men of France—an officer of one of the great French banking houses—and had been on his way to Lyons with a large sum of money in his possession. He had placed his treasure carefully in the inner breast pocket of his coat, and here, with his hand continually upon it, he thought it would be secure, even if he were unwary enough to fall asleep. When his assailant had held his face close to him as he seized the roll of bills, the bank officer had recognized him as an English employee of some importance in his own bank. I regretted sincerely that the man should have been an Englishman, because the French are so ready to judge of a nation by any of its miserable representatives who may come within their personal experience. The next day's papers presented proof positive that the Englishman was the culprit; he had known that the journey was to be taken, that the funds were to be conveyed, and that the officer's eyesight was weak enough to make recognition next to an impossibility. Moreover, the day after the assault he was not at his post in the banking house. All this evidence would have been enough to convict him, even though he had not been recognized by the weak-eyed bank-officer, and yet the detectives were at fault—not as to the proof but as to the man. They tracked him from the banking-house door to the Gare de Lyon with great ease; in imagination they followed him into the carriage; they were wise as to all that happened therein; they described how he made the final leap with the greatest accuracy, but there they stopped! They did not back down either gradually or gracefully, but they simply stopped, with a force that threw them entirely off the track, and left them small prospects of getting on it again. Had the earth opened and swallowed him? Probably not; but had it done so his departure could hardly have been a subject of more conjecture than it was in the present instance. The infallible Javart no longer existed, and the Englishman, dead, alive, or otherwise, never was captured. Well, excepting the mysterious disappearance, it was a very ordinary affair; similar things have happened many times before, and probably they will continue to happen so long as railway carriages are constructed in the present fashion. Years rolled by, and the adventure ceased to occupy my thoughts; in fact, at the time on which the second part of my narrative opens all remembrance of it had almost passed from my mind.

## PART II.

I am a shy, reserved, and sensitive man, and the longer I live the more firmly am I convinced that these qualities were born in me to remain with me forever. I have mixed with society and I have travelled, I have reasoned with myself, and in fact I have tried all the known remedies, yet my birthrights have always remained to be my tormentors. Though intensely affectionate by disposition I invariably shrink from a chance meeting with an acquaintance, and sometimes even with a friend—call it cowardice, call it shyness, call it what you will, only those who are like me will know all that I have suffered. If you have ever met with a man of my type, possessing the qualities referred to above, the chances are that you have remarked him to be a jealous man; however jealous you probably never realized, because it was his nature to conceal his sentiments, his emotions, and his passions from the public gaze. In this kind of men jealousy is often an incurable disease, for which he is entirely irresponsible, and, that you may do me justice, I beg that you will bear this in mind throughout the reading of this second part of my narrative.

Ah, how happy I was during the first days of my married life! Shall I ever forget them? But no! Why say anything on a theme which has been exhausted and exhausted again, by the genius, the sensible man and the fool? Grand total of my unsung rhapsody—my wife was beautiful, modest and accomplished. I do not say so because I thought so, but because all who knew her were of my opinion. Poor, perhaps, so far as money goes, but what of that? I, as assistant editor of a local newspaper, made money enough for

both, and to spare, and though my work was discouraging at times, and the hours of labor long, I was always cheered by the thought of the little wife whose eyes were never once permitted to feel drowsy until I was heard fumbling at the lock with my key at one or sometimes two o'clock in the morning. What if she had been a governess in the family of one of my chums? She was a lady by birth—yes, her father was a gentleman; if he also a spendthrift, my love could hardly be blamed for that. So I took her from her modest position of governess, just as she was, and made her mistress of a little house in a quiet quarter of London town. The house was one of a new row, and the rent, quite unexpectedly came within the sum I had mentally laid aside to cover this important item. Somewhere on your book shelves, if you read novels, you will find the rapture of my life described much better than any words of mine could describe it; therefore my version will not trouble you. One day when I had become persuaded that the remainder of my life was to be all sunshine, a neighbor spoke to me of Dr. Jerrold. "Dr. Jerrold?" I repeated, "I do not know the man."

"Nor do I; but you and he are likely to become better acquainted," said my informant. "I am told that the house next door to yours has been rented to him. They say he is a rising man."

Sure enough, the following Saturday Dr. Jerrold's sign appeared, and the trucks arrived with a heaping load of a little of everything. As that time my wife and I were interested in household goods, and we stood looking out of the window as the important operation of unloading was carried on, for Saturday was an off day with me, as my paper published no Sunday edition.

"Strange that Dr. Jerrold has not appeared on the scene," I remarked. "I suppose we may regard him as our family doctor—if we ever have the misfortune, or in one certain case, the good fortune to need one. Here now comes a gentle man across the street who looks as though he might be an M. D. Who knows? Perhaps this is Dr. Jerrold himself."

I had been standing with my arm around my wife's waist, and as I spoke I felt her trembling under my grasp. I turned and looked at her—her face was deadly white, every vestige of color had departed from that usually ruddy cheek. "What, Bella, are you ill, my dear?" I cried. "Why, why did you not tell me before?"

"Take me away," she said faintly. "Let me sit down. It is only faintness. I will pass." She could hardly support herself, so I lifted her in my arms and carried her to a sofa. The paleness of her face made my heart stand still, and, though I knew of many household remedies in a case like this, I did not dare to leave the room to search for them. A thought flashed across my mind; I stepped to the window, and saw the gentleman I had likened to a physician entering the house next door. I threw up the sash and called to him: "Dr. Jerrold, Dr. Jerrold!" and he looked in my direction.

"I beg your pardon," I continued, "but if you are a physician—"

"I am," he said, gravely.

"Then for heaven's sake come here without one moment's delay; I am almost distract."

He jumped over the railing which separated his plot of ground from mine, and stepped over my threshold. I was so excited that I seized his hand and wrung it as though he had been a friend of my boyhood. As I did so a peculiar expression passed over his face. He said nothing, he did nothing, only simply stared at me, and his face betrayed even more astonishment than the circumstances seemed to call for. Once I thought he was on the point of turning to go out, but I clutched at his coat. "My wife is ill," said I. "Look at her!" He entered the room and bent his eyes upon her, and again the same peculiar expression of surprise—still more marked this time—passed over his face. "Am I mad?" I asked myself, "or is he, or are we both mad together?" My wife had closed her eyes, and was lying very still. "Isabelle," said I, "Dr. Jerrold is here." No answer. I bent my head, and, not feeling her breath upon my cheek, I turned to the physician with a look that must have startled him. "Is she dead?"

"She has only fainted." With a smile, at my ignorance perhaps. "She will recover in a few moments. You had better leave the room."

"Why?"

"Because you are in too nervous a state to stay. If I am not careful I shall have two fainting persons on my hands instead of one. Be sensible now and go out—but send your servant here. I always carry the remedies for such a simple case as this about my person—only do me the favor to retire, because I shall work better with you away."

I demurred at first, but he was too strong for me, when he remarked that my hesitation was wasting valuable time. I rang for our servant, and met her at the door as I was going out.

"Your mistress is very ill," said I, convinced of the truth of my words. "Obey the instructions of the doctor to the letter, and let me know as soon as she recovers." The girl stared—then bowed assent as she walked in.

I strode up and down the hallway, around and around the kitchen, too nervous to sit still or stand still for a single moment. Once or twice I was on the point of putting my hand on the door-knob and walking in, but I repressed my impatience with an effort, and put my hand in my pocket instead.

"All!" said I, as she hesitated, and my heart gave a great leap.

"All the troubles of my life before you came to me; for my life has not always been so cloudless as it is to-day."

"You should tell me all that has ever troubled you," said I, "if my sympathy could comfort you in the least."

"It would comfort me," she answered; "and I will tell you—but not now. Some day, perhaps, I will, but I cannot do it. Do not press me, for I am not equal to telling you to-day."

Seeing her determined, I did not insist; little did I then dream that before the sun rose twice again I was to know every par-

sible and opened the door of the room where my wife lay; the door opened softly, giving forth no sound, and a screen stood before it, over the top of which I could just manage to see. As I looked over the top of that screen, the sight that presented itself to my eyes held me motionless with astonishment, for I know not how long a time. My wife, lifeless only a few minutes before, frantically pale even now, indeed, had raised herself from the sofa and placed both arms around the doctor's neck, and as I gazed at her those eyes were very, very weak.

This was the way it came about.

Walking to my office immediately after the conversation recorded above, in a crowded thoroughfare, my eyes lighted by chance on an elderly gentleman with peculiar eyes; beautiful they were, and yet a certain something about them told me that those eyes were very, very weak. It is a most astonishing fact that I stared at that gentleman in a breathless sort of way my thoughts were not upon him—no, they were far away—they were with Dr. Jerrold; they were with the man of the soft cap who had returned so suddenly from the land of dreams, to relieve his fellow passenger of a roll of bank notes. The truth flashed upon me, out of a mental effort, the instant the figure of this gentleman came within my range of vision; I recognized Dr. Jerrold as the robber, before I recognized the elderly gentleman as the robbed; it certainly was not responsible for what she did.

Suddenly, as wild thoughts chased one another through my brain, a suspicion struck me with all the force of a blow. My wife, in whom I had put such perfect trust, might she not be false, and this man some discarded lover? or, worse still, some lover who had discarded her? In a moment the conviction forced itself upon me, though I struggled to cast it off. I recalled the fact that she had first been attacked by her strange illness when I pointed out the man to her, and this now seemed to me all significant. I had always known that I was of a jealous nature, but until this moment I never realized the maddening influence, the irresistible strength and power that my weakness possessed over me.

At that moment I was no longer my own master—I was capable of anything—no crime could have been too great for me to commit. Fortunately, however, my rage was too great to permit me to satisfy it by any sudden revenge. It was not to my credit, whatever the law may say to the contrary, that I determined to watch, to wait, and to concoct a scheme which should amply avenge my tormented and insulted spirit.

At length, when the doctor called me, I forced myself to look at him with peace in my eye. For once I played the hypocrite, and entered the room with a smile on my face.

"My darling," said I, "you frightened me; I am so glad to see you better."

"Yes, I am better now," she murmured, in some confusion, as I fancied.

"Doctor," I remarked, "my wife's first acquaintance with you has not begun under auspicious circumstances. I pointed you out to her in the street, and a moment afterward she was unable to stand." I fixed my eyes on Isabelle as I spoke, and observed the color rise perceptibly in her cheeks; but the doctor only answered with a careless smile. "A queer coincidence. I hope our next meeting may not be attended with such unhappy results." He bowed himself out, and although I followed him to the door, I could not bring myself to grasp the hand he extended to me. I pretended not to see it, and he finally turned away with a slightly annoyed expression. From that day on I was mentally tortured, morning, noon, and night. Then it was that I realized how well Iago said;

"Oh, beware, my lord, of jealousy; It is the green-ey'd monster, which doth mock The meat it feeds on."

Dr. Jerrold, although our next-door neighbor, did not become very intimate with us, or with me at least; I often pressed him to call, in the slight hope that something would transpire to give me a clew to the mystery I was endeavoring to solve, but he invariably excused himself. His practice, he said, was daily increasing, and what little time he could spare from his patients was devoted to his books. However, one day I came home unexpectedly, and found him making a social call on my wife. Again I was wild with rage; again I restrained myself in the hope of finding some more severe punishment for his rascality than merely knocking him down.

At times during the next few weeks I felt almost persuaded of my wife's innocence; notwithstanding the mystery which I could not fathom, I was willing to believe that in the end she would come out as pure as I had always imagined her to be; but these were only stray moments of tranquillity; at the first attack of the demon my confidence would give way again.

I think I had seen Dr. Jerrold twenty times or more when the impression first came to me that I had seen him before at some time previous to that day when he startled my wife. In vain I besought my memory to tell me where or when or under what circumstances. Jerrold I had known in my younger days, but none bore the slightest resemblance to the man in question. After a month's distracting effort I abandoned the attempt to place him.

One morning I found my wife in tears. "Isabelle," said I, "why do you weep? What is it?" She tried to smile.

"Sad thoughts will come at times, sad memories, and sometimes I think that such thoughts do me good."

I said not a word, and the gentleman continued:

"Of course, after this, I should not think of attempting to punish him, even if I knew where to look for him, and therefore, I must decline your aid. I thank you, sir, nevertheless. When next you are in France I may be of service to you. Here is my card. Good morning, sir."

He extended his hand, and I fear I let him depart with but a slight pressure, so perplexed was I by the sudden turn my affairs had taken.

"Then what demon possessed you to adopt secrecy?" I asked, finding my tongue at length. "Oh, why did you not tell me at first?"

"I had my reason, but since you are as much in my power as I can ever be in yours, and to show you what a fool you are, I will tell you my reason. There! Are you satisfied? I will tell you my reason. Years ago you were riding in a

carriage, when a man jumped out. Is that so?"

"It is." "At the time you thought he must have been killed. Is that so?"

"That is so."

"Well, he was not killed. I am the man! I escaped—never mind how. I escaped to England. I was ashamed to go back to my family, so I disguised myself under an assumed name, and I finally became a physician. All went well until that day when I first saw you as my sister's husband. My sister penetrated my disguise in an instant, and you know how the sight of me affected her. Until that moment she had not the least idea that her disgraced brother was in England. I recognized you before I had entered your house, but I also saw that you did not recognize me. I managed to remember, so that my sister and I were left alone; then I told her the truth. I told her that for me you were the most dangerous husband she could have found. Now just consider. Suddenly a figure bearing a lighted candle appeared above me, and instead of it being Isabelle,



